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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,133	05/04/2007	Leo R. Novak	63206B US	5294

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The Dow Chemical Company
Intellectual Property Section
P.O. Box 1967
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EXAMINER	
SALVITTI, MICHAEL A	
ART UNIT	PAPER NUMBER
1796	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/587,133	NOVAK ET AL.	
	Examiner	Art Unit	
	MICHAEL A. SALVITTI	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 May 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3 and 5-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,300,419 to *Sehanobish et al.* in view of US 2002/0198350 to *Machida et al.*

Regarding claim 1: *Sehanobish* teaches a propylene polymer composition comprising a propylene block copolymer (see abstract). The propylene copolymer comprisies i) a highly crystalline first block comprising a propylene polymer portion (col. 2, lines 40-45); and ii) a rubbery second block comprising a C_2 or C_4-C_{20} alpha-olefin (col. 2, lines 50-55). This composition further comprises a polyolefin elastomer (col. 6, lines 11-26) and carbon black (col. 8, line 65). Components (d) and (e) are optional, and have been given little patentable weight.

Sehanobish does not specify whether the rubbery portion of the second block has a M_z equal to or greater than about 1,000,000. *Machida* teaches propylene homopolymers and copolymers having a M_z 1,000,000 or greater (see Tables 1 and 2, ¶ [0256]-[0257]). *Sehanobish* and *Machida* are analogous art in that they are drawn to the same field of endeavor, namely production of propylene copolymers used in molding applications. At the time of the invention, it would have been obvious to a person having ordinary skill in the art to make the polymers taught by *Sehanobish* with second block comprising a rubber with M_z equal to or greater than

1,000,000, as taught by *Machida*, with the motivation of improving the processing and moldability of the product (*Machida* ¶ [0013]). *Machida* recognizes M_z as a result-effective variable that is known to affect the processing and moldability characteristics (*Machida* ¶ [0013]).

Regarding claim 2: *Sehanobish* further teaches the propylene block copolymer comprises an ethylene and propylene rubber (col. 2, lines 55-67).

Regarding claim 3: *Sehanobish* further teaches the polyolefin as i) having a density of equal to or less than about 0.93 g/cm^3; ii) a molecular weight distribution of equal to or less than 3.0; iii) a composition distribution branch index equal to or greater than about 30% (see claims 1 and 16 of '419).

Regarding claim 5: *Sehanobish* teaches carbon black (see Table 1, col. 14; CB-1 and CB-2).

Regarding claim 6: *Sehanobish* further teaches heat, light, oxygen stabilizers among other additives (col. 12, lines 1-10).

Regarding claim 7: *Sehanobish* teaches mold release agents such as magnesium and calcium stearate (col. 11, lines 64-66).

Regarding claim 8: *Sehanobish* teaches erucamide among other slip agents (col. 10, line 65 through col. 11, line 46).

Regarding claim 9: *Sehanobish* teaches an a propylene polymer composition wherein (a) propylene polymer comprises 60 parts by weight; (b) polyolefin elastomer (S/LEP) comprises 25 parts by weight (c) electrically conductive carbon is present at 2.9 parts by weight (carbon black;

CB-2); (d) optional olefinic polymer is not present (e) filler (talc-2) is present at 15 parts by weight (see Table 1, col. 14; Example 3).

Regarding claim 10: *Sehanobish* teaches the olefinic polymer present in an amount from 0-15 parts by weight (see claim 1(d) in '419) and may comprise polyethylene (HDPE/LLDPE; col. 10, lines 40-65).

Regarding claim 11: *Sehanobish* teaches the composition having 0-50 parts by weight of filler; the filler material may be talc, wollastonite ,clay, among other compositions (col. 9, lines 1-30).

Regarding claims 12-14: *Sehanobish* teaches a process of extruding the propylene polymer composition into a fabricated article (col. 12, line 57 through col. 13, line 12). The polymer is fabricated into strands and pellets (col. 13, lines 7-10). The polymer may further be fabricated into automotive parts such as bumper fascia, among other components (see '419 claim 20).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Sehanobish* in view of *Machida* as applied to claim 1 above, and further in view of U.S. Patent No. 4,504,617 to *Yui et al*.

Regarding claim 4: *Sehanobish* in combination with *Machida* collectively teaches the invention of claim 1, as set forth above.

Sehanobish is silent regarding whether the composition has a surface resistivity of equal to or less than 10^{12} Ohms. *Yui* teaches a polypropylene copolymer (see abstract) with conductive carbon filler (col. 5, lines 4-25), having a resistivity on the order of 10^2 to 10^4 ohms (see Tables

13-15). *Sehanobish* and *Yui* are analogous art in that they are drawn to the same field of endeavor, namely synthesis of polypropylene/carbon black composites for molding materials. At the time of the invention, it would have been obvious to a person having ordinary skill in the art to incorporate carbon black to the invention of *Sehanobish* in an amount that would improve the conductivity (*Yui* col. 16, lines 47-51), with the motivation of using the polymer in electronic applications (*Yui* col. 5, liens 44-51).

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- JP2002-275342 teaches polyolefins comprising elastomoers and conductive carbon filler
- US 2005/0004269 teaches molded resins containing graphite
- US 2002/0061976 teaches polypropylene/filler blends of similar ratios
- US 2003/0069362 teaches polypropylene blends
- U.S. Patent No. 5,368,919 teaches high M_z polypropylene blends
- U.S. Patent No. 4,734,450 teaches E/P/filler copolymers in similar ratios
- U.S. Patent No. 5,576,374 teaches olefin/filler blends

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL A. SALVITTI whose telephone number is (571)270-7341. The examiner can normally be reached on Monday-Thursday 8AM-7PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571) 272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. A. S./
Examiner, Art Unit 1796

/David Wu/
Supervisory Patent Examiner, Art Unit 1796